

REMARKS / ARGUMENTS

In complete response to the Office Action dated February 22, 2006, on the above identified application, reconsideration is respectfully requested. Claims 18, 20-39, 42, and 46-51 are pending in this application.

With this amendment, claim 39 is amended.

Claim Rejections Under 35 U.S.C. § 102:

Claims 18, and 20-34 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Quaas et al. '017. Applicants respectfully submit that claims 18 and 20-34 are not anticipated by Quaas et al. '017.

The Examiner notes that Quaas et al. '017 "discloses welding which uses a copper based alloy that also contains tin (4-25%) and phosphorous (0.1-1%), the balance being copper." Thus, Quaas et al. '017 discloses a *single* welding alloy that contains copper, tin and phosphorous. Applicants respectfully point out that this is entirely different than what is required in claim 18 of the instant application.

Claim 18 of the instant application requires two separate operations, the first being a brazing operation and the second being a simple deposition of a layer of alloy. The brazing operation establishes a matrix, and the second step comprises "depositing at least one layer of an alloy onto" this matrix. These two steps are a process for *preparing* the workpiece for subsequent welding. Claim 18 does not require any welding to take place.

Claim 18 of the instant application requires that the brazing operation (i.e., the matrix) comprise copper and phosphorous. Claim 18 requires that the layering alloy comprise copper and at least 1.0% tin by weight. These are two different compositions, for two different layers, made by two different processes. The matrix is produced by brazing. The layered alloy "supplied in the form of a meltable wire, which is melted by using an electric arc, in particular by means of an MIG torch" (*instant specification, page 9, line 39 – page 10, line 2*).

The process required by claim 18 of the instant application is best understood by referencing Fig. 1. The brazed zone, comprising copper and phosphorous, is indicated as element 3. The layering alloy, comprising copper and at least 1.0% tin by weight, is indicated by elements 5, 6, and 7. The future weld (not within the scope of claim 18) is indicated by element 4. Elements 1 and 2 are the two workpieces that are being welded together.

It would be obvious to one skilled in the art of welding, that Quaas et al. '017, in disclosing single low melting copper base welding alloys, fails to disclose all the elements of claim 18 of the instant application. Thus the § 102 rejection is unsupported and should be withdrawn. As claims 20 – 34 are dependent upon claim 18, these rejections, as pertains to these claims, are likewise unsupported.

Claims 39, 42, and 47 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Davidian et al. '662. Applicants respectfully submit that claims 39, 42, and 47 are not anticipated by Davidian et al. '662.

The Examiner notes that Davidian et al. '662 "discloses a heat exchanger comprised of a plurality of plates made of copper, aluminum or stainless steel. The exchanger is made of a stack of vertical and parallel rectangular plates between which spacer corrugations that also form fins are interposed. Each pair of plates delimits a passage of flat overall shape. These plates are attached using a brazing filler material." Applicants respectfully point out that this is entirely different than what is required in claim 39 of the instant application.

Claim 39 of the instant application requires two separate operations, the first being a brazing operation and the second being a simple deposition of a layer of alloy. The brazing operation establishes a matrix, and the second step comprises "at least one layer of an alloy containing copper and tin being deposited on at least part of the brazed matrix." These two steps are a process for *preparing* the workpiece for subsequent welding. Element (c) of claim 39 then requires the welding of the container "to said at least one layer on the brazed matrix."

As discussed in the specification of the instant application, one problem that exists in the prior art is that if something is brazed with an alloy containing phosphorous, then this brazed area is subsequently effected by the high temperatures of a direct welding process, this phosphorous tends to evaporate, leaving an embrittled area. The present invention solves this problem by separating the phosphorous containing brazed region, from the high-temperature welded region, with an intermediate layer, or layers, of ally that does not contain phosphorous (*see specification generally, pages 1-2 specifically*).

It would be obvious to one skilled in the art of welding that Davidian et al. '662 , in disclosing heat exchanger that only mentioned the word "brazed" once somewhat in passing (column 2, line 64), fails to disclose all the elements of claim 18 of the instant application. Thus the § 102 rejection is unsupported and should be withdrawn. As claims 42 and 47 are dependent upon claim 39, these rejections, as pertains to these claims, are likewise unsupported.

Claim Rejections Under 35 U.S.C. § 103:

Claims 35 – 38, and 50, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Quaas et al. '017 in view of Davidian et al. '662.

As discussed above, claim 18 of the instant application requires elements that are not present in Quaas et al. '017 and are likewise not disclosed in Davidian et al. '682. These same missing features are also present in claim 50 of the instant application. Therefore, this rejection is moot and should be withdrawn. As claims 35 - 38 are dependent upon claim 18, these rejections, as pertains to these claims, are likewise moot.

Claim 46 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over of Davidian et al. '662 in view of Quaas et al. '017.

The features discussed above with reference to claim 18 of the instant application requires elements that are not present in Davidian et al. '682, and are likewise not disclosed in Quaas et al. '017, are also present in claim 39 of the instant application.

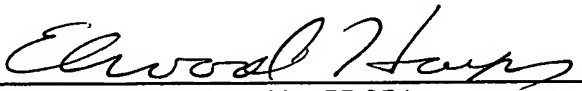
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Therefore, this rejection is moot and should be withdrawn. As claim 46 is dependent upon claim 39, this rejection, as pertains to this claim, is likewise moot.

CONCLUSION

Accordingly, it is believed that the present application now stands in condition for allowance. Early notice to this effect is earnestly solicited. Should the Examiner believe a telephone call would expedite the prosecution of the application, he is invited to call the undersigned attorney at the number listed below.

Respectfully submitted,


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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 19th day of May, 2006.


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